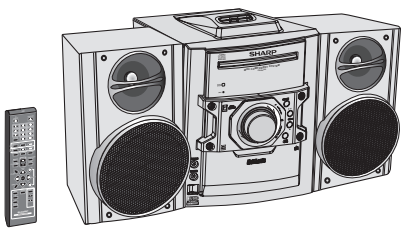
SHARP

MINI COMPONENT SYSTEM
SISTEMA MINI

MODEL
MODELO

CD-DH790N

OPERATION MANUAL
MANUAL DE MANEJO



Made for iPod

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

CD-R/RW Playable

MP3

COMPACT disc DIGITAL AUDIO

USB PLAYBACK

Plays Windows Media™

ENGLISH ..... Please refer to pages i to ii and E-1 to E-21.
ESPAÑOL ..... Consulte las páginas i a ii y S-1 a S-21.

SHARP CORPORATION

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Introduction

Thank you for purchasing this SHARP product. To obtain the best performance from this product, please read this manual carefully. It will guide you in operating your SHARP product.

CD-DH790N Mini Component System consisting of CD-DH790N (main unit) and CP-DH790N (speaker system).

Special Note

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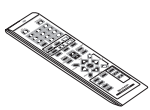
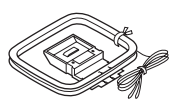
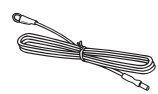
Accessories

Please confirm that the following accessories are included.

		
Remote control x 1 **RRMCGA205AWSA**	**AM loop antenna x 1** **QANTLA004AWSA**	**FM antenna x 1** **FANT1535A**

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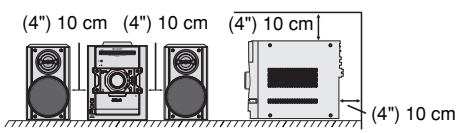
Precautions

■ General

- Please ensure that the equipment is positioned in a well ventilated area and ensure that there is at least (4") 10 cm of free space along the sides, top and back of the equipment.



- Use the unit on a firm, level surface free from vibration.
- Place the speakers at least 12" (30 cm) away from any CRT TV to avoid color variations across the TV screen. If the variations persist, move the speakers further away from the TV. LCD TV is not prone to such variation.
- Keep the unit away from direct sunlight, strong magnetic fields, excessive dust, humidity and electronic/electrical equipment (home computers, facsimiles, etc.) which generate electrical noise.
- Do not place anything on top of the unit.
- Do not expose the unit to moisture, to temperatures higher than 140˚F (60˚C) or to extremely low temperatures.
- If your system does not work properly, disconnect the AC power cord from the AC outlet. Plug the AC power cord back in, and then turn on your system.
- In case of an electrical storm, unplug the unit for safety.
- Hold the AC power plug by the head when removing it from the AC outlet, as pulling the cord can damage internal wires.
- The AC power plug is used as a disconnect device and shall always remain readily operable.
- **Do not remove the outer cover, as this may result in electric shock. Refer internal service to your local SHARP service facility.**
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- Attention should be drawn to the environmental aspects of battery disposal.
- This unit should only be used within the range of 41˚F - 95˚F (5˚C - 35˚C).

Warning:
The voltage used must be the same as that specified on this unit. Using this product with a higher voltage other than that which is specified is dangerous and may result in a fire or other type of accident causing damage. SHARP will not be held responsible for any damage resulting from use of this unit with a voltage other than that which is specified.

■ Volume control

The sound level at a given volume setting depends on speaker efficiency, location and various other factors. It is advisable to avoid exposure to high volume levels, which occurs while turning the unit on with the volume control setting up high, or while continually listening at high volumes. Excessive sound pressure from earphones and headphones can cause hearing loss.

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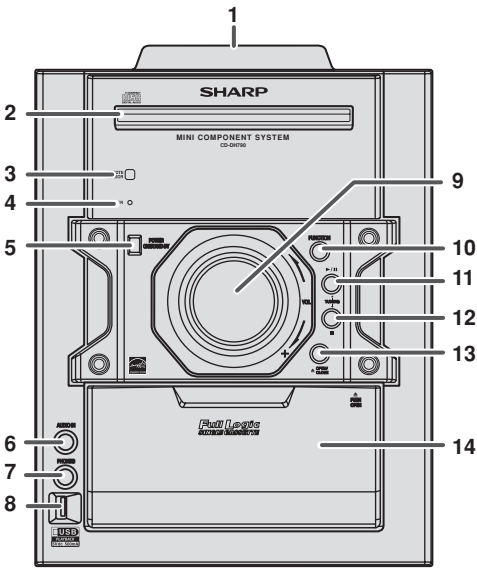

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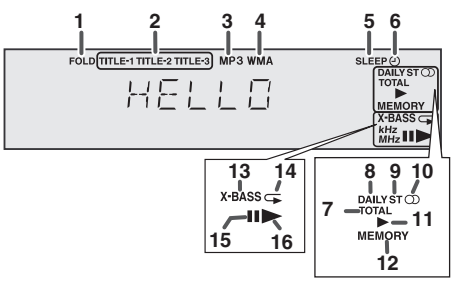

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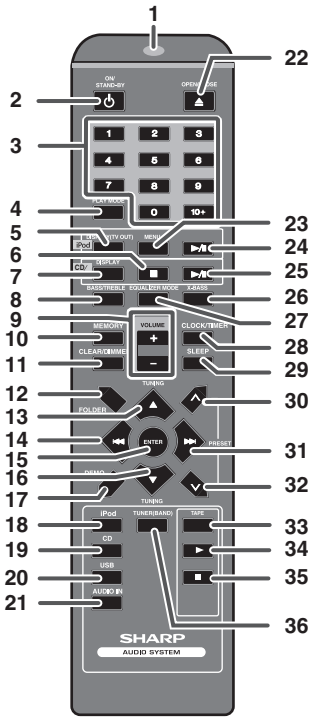

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■ Speaker system

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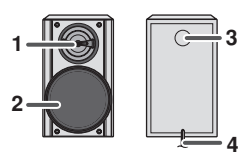

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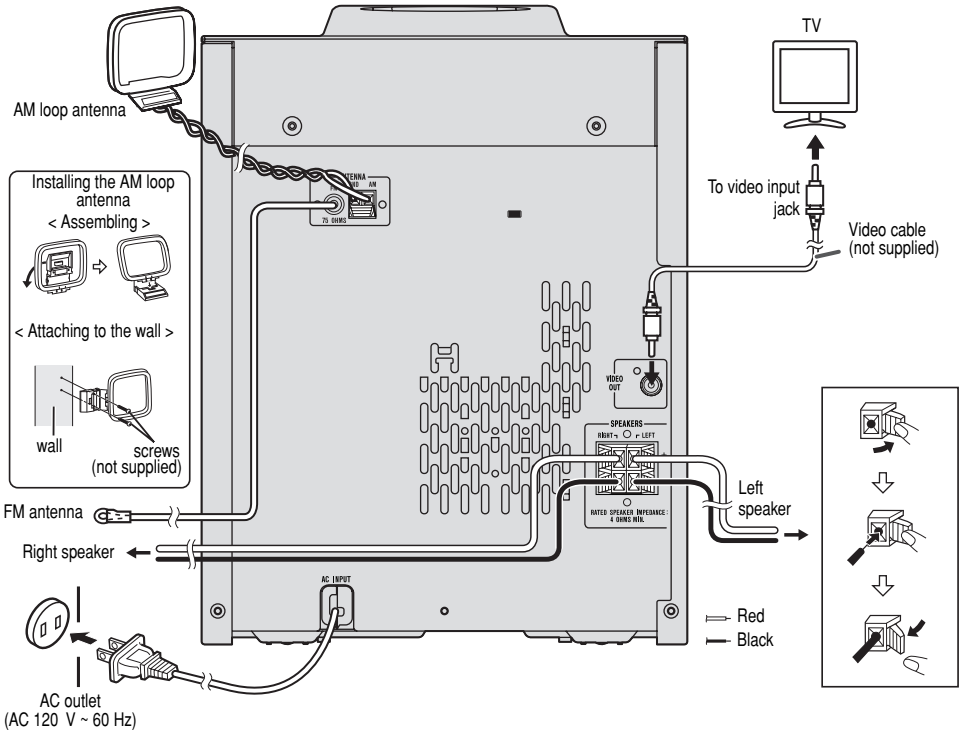
System connections

Make sure to unplug the AC power cord before making any connections.



■ Antenna connection

Supplied FM antenna:
Connect the FM antenna wire to the FM 75 OHMS jack and position the FM antenna wire in the direction where the strongest signal can be received.

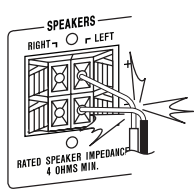
Outdoor FM antenna:
Use an outdoor FM antenna (75 ohms coaxial cable) for better reception. When an outdoor FM antenna is used, disconnect the supplied FM antenna wire.

Supplied AM loop antenna:
Connect the AM loop antenna to the AM and GND terminals. Position the AM loop antenna for optimum reception. Place the AM loop antenna on a shelf, etc., or attach it to a stand or a wall with screws (not supplied).

Note:
Placing the antenna on the unit or near the AC power cord may cause noise pickup. Place the antenna away from the unit for better reception.

■ Speaker connection

- Connect the black wire to the minus (–) terminal, and the red wire to the plus (+) terminal.
- Use speakers with an impedance of 4 ohms or more, as lower impedance speakers can damage the unit.
- Do not mistake the right and the left channels. The right speaker is the one on the right side when you face the unit.
- Do not let the bare speaker wires touch each other.



Incorrect

- Do not allow any objects to fall into or to be placed in the bass reflex ducts.
- Do not stand or sit on the speakers. You may be injured.

■ Demonstration mode

- The first time the unit is plugged in, the unit will enter the demonstration mode. You will see words scroll.
- To cancel the demonstration mode, press the DEMO button (remote control) during power stand-by mode. The unit will enter the low power consumption mode.
- To return to the demonstration mode, press the DEMO button again.

■ Connecting iPod to a TV

The iPod with photo and video can be viewed by connecting to a TV/monitor.
If the TV/monitor has a video input, connect it to the VIDEO OUT jack on the rear of the unit.

Note:
Please make sure to set iPod unit to either NTSC or PAL to match your TV signal. Please visit Apple's homepage for further information.

■ AC power connection

After checking all the connections have been made correctly, plug the AC power cord of this unit into the AC outlet. If you plug in the unit first, the unit will enter the stand-by mode.

Note:
Unplug the AC power cord from the AC outlet if the unit will not be in use for a prolonged period of time.

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Remote control

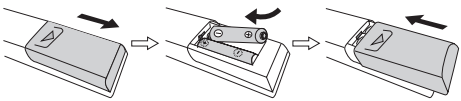
■ Battery installation

1 Open the battery cover.

2 Insert the batteries according to the direction indicated in the battery compartment.

When inserting or removing the batteries, push them toward the (–) battery terminals.

3 Close the cover.



Caution:

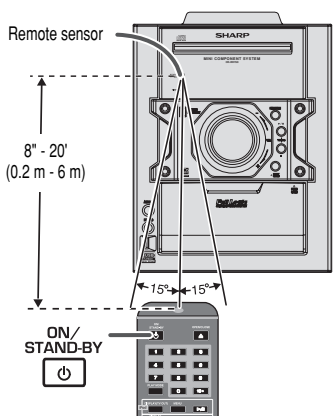
- Replace all old batteries with new ones at the same time.
- Do not mix old and new batteries.
- Remove the batteries if the unit will not be used for a long period of time. This will prevent potential damage due to battery leakage.
- Do not use rechargeable batteries (nickel-cadmium battery, etc.).
- Installing the batteries incorrectly may cause the unit to malfunction.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

Notes concerning use:

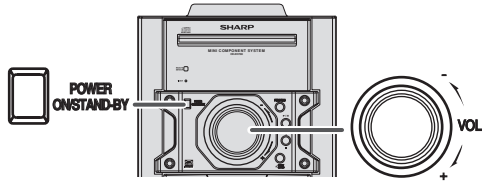
- Replace the batteries if the operating distance is reduced or if the operation becomes erratic. Purchase 2 "AAA" size batteries (UM/SUM-3, R6, HP-7 or similar).
- Periodically clean the transmitter on the remote control and the sensor on the unit with a soft cloth.
- Exposing the sensor on the unit to strong light may interfere with operation. Change the lighting or the direction of the unit if this occurs.
- Keep the remote control away from moisture, heat, shock, and vibrations.

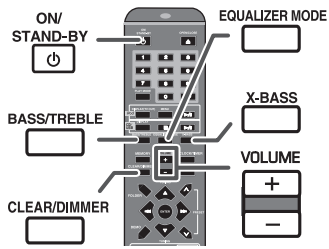
■ Test of the remote control

Check the remote control after checking all the connections.
Point the remote control directly at the remote sensor on the unit. The remote control can be used within the range shown below:



General control





■ To turn the power on

Press the ON/STAND-BY button to turn the power on.

After use:

Press the ON/STAND-BY button to enter the power stand-by mode.

■ Display brightness control

To dim the display brightness, hold down the CLEAR/DIMMER button on the remote control for 2 seconds or more.

■ Volume auto fade-in

If you turn off and on the main unit with the volume set to 27 or higher, the volume starts at 16 and fades in to the last set level.

■ Volume control

Turn the volume knob toward VOL +/– (on main unit) or press VOLUME +/– (on remote control) to increase or decrease the volume.

■ X-Bass control

When the power is first turned on, the unit will enter the extra bass mode which emphasizes the bass frequencies, and "X-BASS" will appear. To cancel the extra bass mode, press the X-BASS button on the remote control.

■ Bass control

1 Press the BASS/TREBLE button to select "BASS".

2 Within 5 seconds, press the VOLUME (+ or –) button to adjust the bass.

■ Treble control

1 Press the BASS/TREBLE button to select "TREBLE".

2 Within 5 seconds, press the VOLUME (+ or –) button to adjust the treble.

■ Equalizer

When the EQUALIZER MODE button is pressed, the current mode setting will be displayed. To change to a different mode, press the EQUALIZER MODE button repeatedly until the desired sound mode appears.

FLAT	No equalisation.
GAME	For game.
CLASSIC	For classical music.
POPS	For pop music.
VOCAL	Vocals are enhanced.
JAZZ	For jazz.

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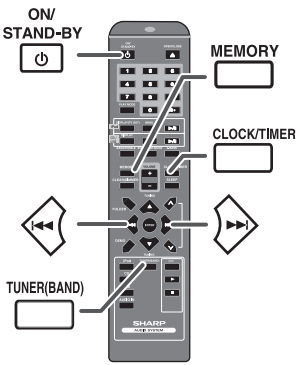
Setting the clock (Remote control only)



In this example, the clock is set for the 24-hour (0:00) display.

1. Press the ON/STAND-BY button to turn the power on.
2. Press the CLOCK/TIMER button.
3. Within 10 seconds, press the MEMORY button. Press the ⏮ or ⏭ button to select 24-hour or 12-hour display and then press the MEMORY button.

"0:00" → The 24-hour display will appear. (0:00 - 23:59)
↓
"AM 12:00" → The 12-hour display will appear. (AM 12:00 - PM 11:59)
↓
"AM 0:00" → The 12-hour display will appear. (AM 0:00 - PM 11:59)

4. To adjust the hour, press the ⏮ or ⏭ button and then press the MEMORY button. Press the ⏮ or ⏭ button once to advance the time by 1 hour. Hold it down to advance continuously.
5. To adjust the minutes, press the ⏮ or ⏭ button and then press the MEMORY button. Press the ⏮ or ⏭ button once to advance the time by 1 minute.

To confirm the time display:
Press the CLOCK/TIMER button. The time display will appear for about 10 seconds.

Note:
The "CLOCK" will appear or time will be displayed when the AC power supply is restored after a power failure or unplugging the unit. If incorrect, readjust the clock as follows.

To readjust the clock:
Perform "Setting the clock" from step 1. If the "CLOCK" does not appear in step 2, step 3 (for selecting the 24-hour or 12-hour display) will be skipped.

To change the 24-hour or 12-hour display:

1. Clear all the programed contents. [Refer to "Factory reset, clearing all memory" on page 20 for details.]
2. Perform "Setting the clock" from step 1 onwards.

Listening to the iPod

Supported iPod models:
- iPod nano (software 1.2 above)
- iPod mini (software 1.2 above)
- iPod (5th generation) (software 1.3 above) (Dock connector equipped Click Wheel model)
- iPod (4th generation) (software 3.0.2 above) (Dock connector equipped Click Wheel model)
- iPod nano (2nd generation) (software 1.0.0 above)
- iPod nano (3rd generation) (software 1.0.3 above)
- iPod nano (4th generation) (software 1.0.3 above)
- iPod classic (software 1.0.3 above)
- iPod touch (software 1.1 above)
- iPod touch (2nd generation) (software 2.1 above)

Caution:
Please update your iPod unit to the latest software version from Apple's homepage before using it.

Notes:
- Once the iPod is connected to the unit it will begin charging.
- The iPod unit cannot be charged while the main unit is in the stand-by mode or during USB mode.

Auto power on function:
When you press any of the following buttons, the unit turns on.
- iPod button on the remote control: The unit turns on and the iPod function is activated.
- ►/II button on the main unit: The unit turns on and playback of the last function will start (iPod, CD, TUNER, USB, TAPE, AUDIO IN).

■ iPod adaptor connection

Notes:
- iPhone is not supported by this system.
- You can use an audio cable to connect your iPod to the AUDIO IN jack if:
  1. your iPod adaptor does not fit into the iPod dock on the main unit.
  2. you have an iPod that does not have an iPod adaptor.
  3. you have an iPod that does not have an iPod 30 pin connector.

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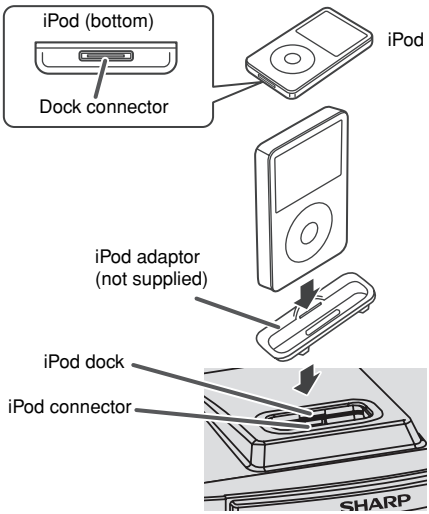
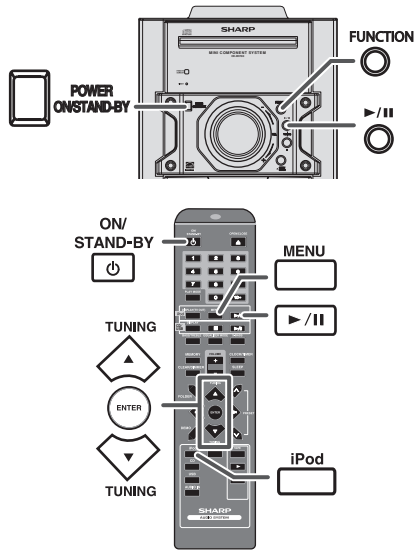
■ To insert iPod adaptor

1 Press the ON/STAND-BY button to turn the power on.
2 Insert the iPod adaptor into the iPod dock and connect your iPod.





■ iPod playback

1 Press the ON/STAND-BY button to turn the power on.
2 Press the iPod button on the remote control or FUNCTION button repeatedly on the main unit to select iPod function.
3 Insert iPod unit in iPod dock of main unit.
4 Press the ►/II button to start playback.

■ To disconnect iPod

Simply remove the iPod from the iPod dock. It is safe to do so even during playback.

■ Navigating the iPod menus

1 Press the MENU button to view the menu on iPod unit. Press it again to go back to previous menu.
2 Use the TUNING (▼ or ▲) button on the remote control to select an item on the menu and then press ENTER button.

Note:
When navigating the iPod menus with remote control, do not operate any of the buttons on the iPod unit. The volume level is adjusted by pressing the VOL (+ or –) button on the main unit or the remote control. Adjusting the volume on the iPod unit gives no effect.

iPod operation:
The operations described below depend on the generation iPod you are using.

System on operation:
When the main unit is powered on, the iPod unit will automatically power on when docked in the unit (including TIMER function/exclude USB function).

System off (stand-by operation):
When the main unit is turned to stand-by mode, the docked iPod unit will automatically turn to stand-by mode.

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Listening to the iPod (continued)

■ Watching videos on a TV connected to iPod

1 Press the DISPLAY (TV OUT) button for more than 2 seconds. "TV DISP" will appear on display.

2 Press the ENTER button to start playback.

Notes:

- If the TV Out setting is already turned on at video menu, the video is automatically displayed on the TV screen when ENTER key is pressed.
- To return to watching video on iPod screen, press the MENU button to enter video menu. Then press the DISPLAY (TV OUT) button for more than 2 seconds until "iPodDISP" appears.
- During iPod video playback, pressing the DISPLAY (TV OUT) button will not toggle video out display between iPod and TV.

iPod playback detection function:
Once the play button on the iPod unit is pressed, the main unit will automatically change to iPod function overriding the previous function selected.

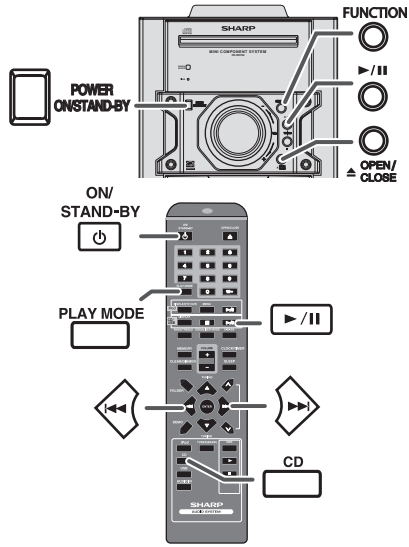
Caution:

- Unplug all accessories for the iPod before inserting it into the iPod dock.
- Stop button (■) at main unit is invalid during iPod function.

■ Various iPod functions

Function	Main unit	Remote control	Operation
Play	►/II	►/II	Press in the pause mode.
Pause	►/II	►/II	Press in the playback mode.
Track up/ down	_____	⏭ ⏮	Press in the playback or pause mode. If you press the button in the pause mode, press the ►/II button to start the desired track.
Fast forward/ reverse	_____	⏭ ⏮	Press and hold down in the playback mode. Release the button to resume playback.
Display	_____	DISPLAY(TV OUT)	iPod back light ON. Press for more than 2 seconds to toggle the video out display between iPod or TV.
Repeat	_____	PLAY MODE	Press to toggle repeat mode.
Shuffle	_____	PLAY MODE	Press and hold down to toggle shuffle mode.
iPod Menu	_____	MENU	Press to view the iPod menu during iPod function.
iPod Enter	_____	ENTER	Press to confirm the selection.
iPod Cursor Up/Down	_____	TUNING ▲ ENTER ▼ TUNING	Press to select the iPod menu.

Listening to a CD or MP3/WMA disc



This system can play back a standard CD, CD-R/RW in the CD format and CD-R/RW with MP3 or WMA files, but cannot record on them. Some audio CD-R and CD-RW discs may not be playable due to the state of the disc or the device that was used for recording.

MP3:
MP3 is a form of compression. It is an acronym which stands for MPEG Audio Layer 3. MP3 is a type of audio code which is processed by significant compression from the original audio source with very little loss in sound quality.

- This system supports MPEG 1 Layer 3 and VBR files.
- During VBR file playback, time counter in the display may differ from its actual playback time.
- Bitrate which is supported by MP3 is 32 ~ 320 kbps.

WMA:
WMA files are Advanced System Format files that include audio files which are compressed with Windows Media Audio codec. WMA is developed by Microsoft as an audio format file for Windows Media Player.

- "MP3" and "WMA" indicator will light up after the unit reads information on an MP3 or WMA disc.
- Bitrate which is supported by WMA is 64 ~ 160 kbps.

Auto power on function:
When you press any of the following buttons, the unit turns on.

- CD button on the remote control: The unit turns on and the "CD" function is activated.
- ►/II button on the main unit: The unit turns on and playback of the last function starts (CD, TUNER, AUDIO IN, iPod, USB, TAPE).

Auto power off function:
In the stop mode of CD, MP3 or WMA operation, the main unit enters the stand-by mode after 15 minutes of inactivity.

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Listening to a CD or MP3/WMA disc (continued)

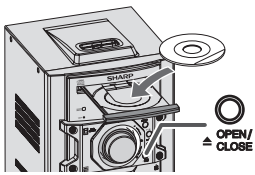
■ Disc playback

1 Press the ON/STAND-BY button to turn the power on.

2 Press the CD button on the remote control or FUNCTION button repeatedly on the main unit to select CD function.

3 Press the OPEN/CLOSE button to open the disc tray.

4 Place the disc on the disc tray, label side up.



5 Press the OPEN/CLOSE button to close the disc tray.

6 Press the ►/II (CD ►/II) button to start playback. After the last track is played, the unit will stop automatically.

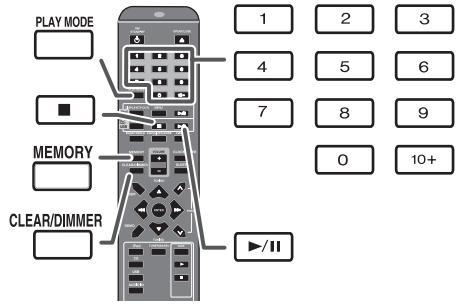
Caution:
- Do not place two discs in one disc tray.
- Do not play discs of special shapes (heart, octagon, etc). It may cause malfunctions.
- Do not push the disc tray while it is moving.
- If the power fails while the tray is open, wait until the power is restored.
- If TV or radio interference occurs during CD operation, move the unit away from the TV or radio.
- Be sure to place 3" (8 cm) disc in the middle of the disc tray.
- Due to the structure of the disc information, it takes longer to read an MP3/WMA disc than a normal CD (approximately 20 to 90 seconds).

Notes for CD or MP3/WMA disc:
- When the end of the last track is reached during fast forward, "END" will appear on the display and CD operation will be paused. When the beginning of the first track is reached during fast reverse, the unit will enter the playback mode (only for CD).
- Rewritable multi-session discs with unfinished writing, can still be played.

■ Various disc functions

Function	Main unit	Remote control	Operation
Play	►/II	►/II	Press in the stop mode.
Stop	■	■	Press in the playback mode.
Pause	►/II	►/II	Press in the playback mode. Press the ►/II button to resume playback from the paused point.
Track up/ down	——	▶▶ / ◀◀	Press in the playback or stop mode. If you press the button in the stop mode, press the ►/II button to start the desired track.
Fast forward/ reverse	——	▶▶ / ◀◀	Press and hold down in the playback mode. Release the button to resume playback.

Advanced CD or MP3/WMA disc playback



■ Direct track search

By using the Direct Search buttons, the desired tracks on the current disc can be played.

Use the Direct Search buttons on the remote control to select the desired track while playing the selected disc.
- The Direct Search buttons allow you to select up to number 9.
- When selecting number 10 or higher, use the "10+" button.

A. For example, to choose 13

1 Press the "10+" button once.

2 Press the "1" button.

3 Press the "3" button.

Selected track number

B. For example, to choose 130

1 Press the "10+" button twice.

2 Press the "1" button.

3 Press the "3" button.

4 Press the "0" button.

Notes:
- A track number higher than the number of tracks on the disc cannot be selected.
- During random play, direct search is not possible.

To stop playback:
Press the ■ (CD ■) button.

■ Repeat play

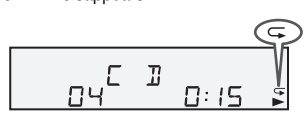
Repeat play can play one track, all tracks or a programed sequence continuously.

To repeat one track:
Press the PLAY MODE button repeatedly until "1-REPEAT" appears. Press the ►/II (CD ►/II) button.

To repeat all tracks:
Press the PLAY MODE button repeatedly until "ALL REPEAT" appears. Press the ►/II (CD ►/II) button.

To repeat desired tracks:
Perform steps 1 - 5 in "Programed play" section on page 11 and then press the PLAY MODE button repeatedly until "ALL REPEAT" appears.

To cancel repeat play:
Press the PLAY MODE button repeatedly until "NORMAL" appears and " " disappears.



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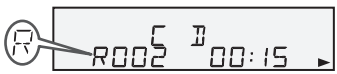
■ Random play

The tracks on the disc can be played in random order automatically.

To random play all tracks:
Press and hold down PLAY MODE button on the remote control until "RANDOM" appears. Press the ►/II (CD ►/II) button.

To cancel random play:
Press and hold the PLAY MODE button until "NORMAL" appears and "R" disappears.



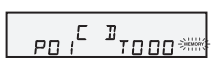
Notes:
- If you press the ⏭ button during random play, you can move to the track selected next by the random operation. On the other hand, the button does not allow you to move to the previous track. The beginning of the track being played will be located.
- In random play, the unit will select and play tracks automatically. (You cannot select the order of the tracks.)

Caution:
After performing repeat play, be sure to press the ■ (CD ■) button. Otherwise, the disc will play continuously.

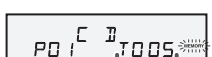
■ Programed play (CD)

You can choose up to 32 selections for playback in the order you like.

1 While in the stop mode, press the MEMORY button on the remote control to enter the programming save mode.



2 Press the ⏮ or ⏭ buttons on the remote control to select the desired track.



Selected track number

3 Press the MEMORY button to save the track number.

4 Repeat steps 2 - 3 for other tracks. Up to 32 tracks can be programed. If you want to check the programed tracks, press the MEMORY button repeatedly. If you make a mistake, the programed tracks can be cleared by pressing the CLEAR/DIMMER button.

5 Press the ►/II (CD ►/II) button to start playback.

■ Programed play (MP3/WMA)

1 While in the stop mode, press the MEMORY button to enter the programming save mode.

2 Press the TUNING (▼ or ▲) button on the remote control to select the desired folder.

Then press the ⏮ or ⏭ button on the remote control to select the desired tracks.

3 Press the MEMORY button to save the folder and track number.

4 Repeat steps 2 – 3 for other folder/tracks. Up to 32 tracks can be programed.

5 Press the ►/II (CD ►/II) button to start playback.

To cancel the programed play mode:
During programed stop mode, press the ■ (CD ■) button. The display will show "MEM CLEAR" and all the programed contents will be cleared.

Adding tracks to the program:
If a program has been previously stored, the "MEMORY" indicator will be displayed. Then follow steps 1 - 3 to add tracks. The new tracks will be stored after the last track of the previous program.

Notes:
- When a disc is ejected, the program is automatically canceled.
- If you press the ON/STAND-BY button to enter the stand-by mode or change the function from CD to another, the programed selections will be cleared.
- During the program operation, random play is not possible.

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MP3/WMA folder mode (only for MP3/WMA files)

To play back MP3/WMA (Windows Media Audio) file

There are many music sites on the internet that you can download MP3/WMA (Windows Media Audio) music files. Follow the instructions from the website on how to download the music files. You can then play back these downloaded music files by burning them to a CD-R/RW disc.

- Your downloaded song/files are for personal use only. Any other usage of the song without owner's permission, is against the law.

■ About folder playback order

If MP3/WMA files are recorded in several folders, a folder number will be set to each folder automatically.

These folders can be selected by the FOLDER button on the remote control. If there is no supported file formats inside the selected folder, the folder is skipped and the next folder will be selected.

Example: How to set folder number if MP3/WMA format files are recorded as below figure.

1 ROOT folder is set as folder 1.

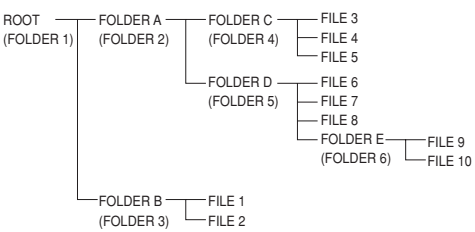
2 As for folders inside ROOT folder (Folder A and Folder B), the folder which is recorded earlier on the disc will be set as folder 2 and folder 3.

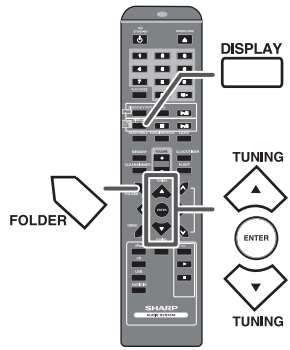
3 As for folder inside Folder A (Folder C and Folder D), the folder which is recorded earlier on the disc will be set as folder 4 and folder 5.

4 Folder E that is inside Folder D will be set as folder 6.

- The folder and file order information which is recorded on the disc depends on the writing software. There maybe possibilities that this unit will playback the files not according to our expected playback order.
- For CD MP3/WMA, 255 numbers of folders and files inclusive of the folders which have non playable files can be read.

Folder mode on/off can be operated by the FOLDER button on the remote control. Files that are played when folder mode is set to the on position, may differ from those played back when folder mode is turned off.

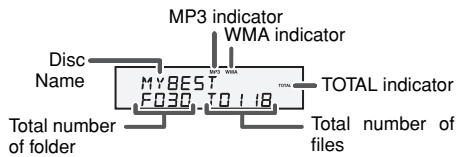




■ Procedure to playback MP3/WMA disc with folder mode on

To play back CD-R/RW.

1 Press the CD button, and load an MP3/WMA disc. After disc is loaded, disc info will be displayed.

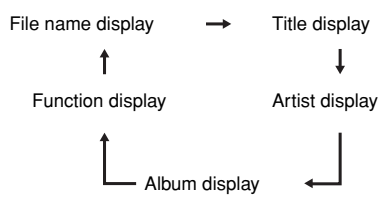


2 Press the FOLDER button, and press the TUNING (▼ or ▲) button on the remote control to select desired playback folder. (Folder mode on)

3 Select desired file to be played back by pressing the ⏮ or ⏭ button.

4 Press the ►/⏸ (CD ►/⏸) button. Playback will start and file name will be displayed.

- Title, Artist and Album name are displayed if they are recorded on the disc.
- In case of playback with the folder mode on, press the TUNING (▼ or ▲) button on the remote control, and the folder can be selected even though it is in playback/pause mode. It will continue playback/pause mode in the 1st track of the selected folder.
- Display content can be changed by pressing the DISPLAY button.



Note:

If "NO SUPPORT" is displayed, it means "Copyright protected WMA file" or "Not supported playback file" is selected.

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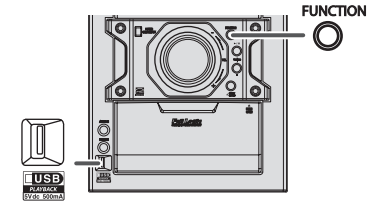
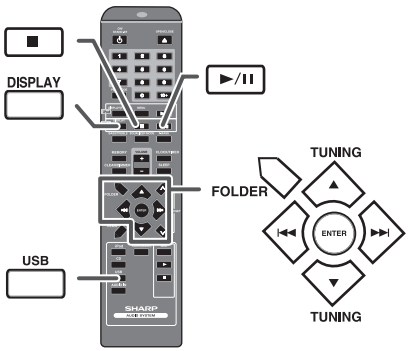
Listening to USB mass storage device/MP3 player

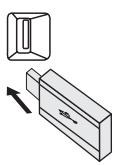




Note:
This USB mass storage device or MP3 player is not compatible with MTP and AAC file systems.

■ To play back USB/MP3 player with folder mode off

1 Press the USB button on the remote control or FUNCTION button repeatedly on main unit to select USB function. Connect the USB memory device that has MP3/WMA format files on the unit. When the USB memory is connected to the main unit, the device information will be displayed.



2 Select desired file to be played back by pressing the ⏮ or ⏭ button.

3 Press the ►/II (USB ►/II) button. Playback will start and the file name will be displayed.
- Title, Artist and Album name are displayed if they are recorded in the USB memory device.
- Display content can be changed by pressing the DISPLAY button.

Note:
To pause playback:
Press the ►/II (USB ►/II) button.

Auto power off function:
In the stop mode of USB operation, the main unit enters the stand-by mode after 15 minutes of inactivity.

■ To play back USB/MP3 player with folder mode on

1 Press the USB button on the remote control or FUNCTION button repeatedly on main unit to select USB function. Connect the USB memory device that has MP3/WMA format files on the unit. When the USB memory is connected to the main unit, the device information will be displayed.

2 Press the FOLDER button, and press the TUNING (▼ or ▲) button on the remote control to select desired playback folder. To start playback with folder mode on, go to step 4. To change the playback folder, press the TUNING (▼ or ▲) button on the remote control to select another folder.

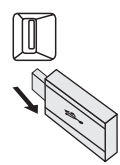
3 Select desired file to be played back by pressing the ⏮ or ⏭ button.

4 Press the ►/II (USB ►/II) button. Playback will start and the file name will be displayed.
- Title, Artist and Album name are displayed if they are recorded in the USB memory device.
- Display content can be changed by pressing the DISPLAY button.

■ To remove USB memory device

1 Press the ■ (USB ■) button to stop playback.

2 Disconnect USB memory device from the USB terminal.



Notes:
- SHARP will not be held liable for the loss of data while the USB memory device is connected to the audio system.
- Files compressed in MP3 and/or WMA format can be played back when connected to the USB terminal.
- This USB memory's format supports FAT 16 or FAT 32.
- SHARP cannot guarantee that all USB memory devices will work on this audio system.
- USB cable is not recommended for use in this audio system to connect to USB memory device. Use of the USB cable will affect the performance of this audio system.
- This USB memory cannot be operated via USB hub.
- The USB terminal in this unit is not intended for a PC connection but is used for music streaming with a USB memory device.
- External HDD-storage cannot be played back via USB terminal.
- If the data inside the USB memory is large, it may take longer time for the data to be read.

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Listening to USB mass storage device/MP3 player (continued)

Notes:

- This product can play WMA and MP3 files. It will automatically detect the file type being played. If unplayable file is played on this product, "NO SUPPORT" is indicated and the file will be automatically skipped. This will take a few seconds. If abnormal indications appear on the display due to the unspecified file, turn off the unit and then turn it on again.
- This product relates to USB mass storage devices and MP3 players. It may however face some irregularities due to various unforeseen reasons from some devices. Should this happen, turn off the unit and then turn it on again.
- The USB port is only intended for direct connection to a USB memory device without any cable.

Advanced USB playback

The following functions are the same as CD operations:

Page

Direct track search 10
Repeat play 10
Random play 11
Programmed play 11

Note:
If USB memory device is not connected, "NO MEDIA" will be shown on the display.

Auto power on function:
When you press any of the following buttons, the unit turns on.

- USB button on the remote control: The unit turns on and the "USB" function is activated.
- ►/II button on the main unit: The unit turns on and playback of the last function starts (CD, TUNER, USB, TAPE, AUDIO IN, iPod).

Advanced USB playback (continued)

Notes:

- This unit only supports "MPEG-1 Audio Layer-3" format. (Sampling Frequency is 32, 44.1, 48kHz)
- Playback order for MP3 files may differ depending on the writing software used during file download.
- Bitrate which is supported by MP3 is 32~320 kbps, WMA is 64~160 kbps.
- For MP3/WMA files, please put ".MP3" ".WMA" extension. Files cannot be played back if there is no MP3/WMA extension.
- Playlists are not supported on this unit.
- This unit can display Folder Name or File Name up to 32 characters.
- Maximum total number of MP3/WMA files is 1024. Maximum total number of folders is 255 inclusive of root directory.
- The display playback time may not be displayed correctly when playing back a variable bitrate file.
- The ID3TAG information supported are TITLE, ARTIST and ALBUM only. Title name, artist name and album name can be displayed by pressing the DISPLAY button during file playback or pause mode.
- WMA meta tag also supports title, artist and album name which are recorded in WMA files. Copyright protected WMA files cannot be played back.

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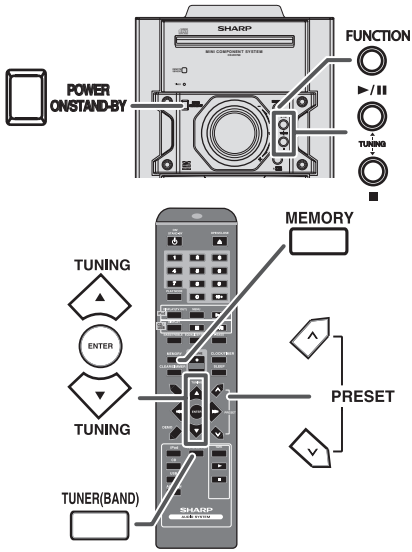

Auto power on function:
When you press any of the following buttons, the unit turns on.

- TUNER (BAND) button (remote control only): The unit turns on and the "TUNER" function is activated.
- ►/II button on the main unit: The unit turns on and playback of the last function starts (CD, TUNER, AUDIO IN, USB, iPod, TAPE).

■ Tuning

1. Press the ON/STAND-BY button to turn the power on.
2. Press the FUNCTION button on the main unit or TUNER (BAND) button on the remote control repeatedly to select the desired frequency band (FM stereo, FM mono or AM).
3. Press the TUNING (▼ or ▲) button to tune in to the desired station.
   - **Manual tuning:**
     Press the TUNING (▼ or ▲) button repeatedly to tune in to the desired station.
   - **Auto tuning:**
     When the TUNING (▼ or ▲) button is pressed for more than 0.5 seconds, scanning will start automatically and the tuner will stop at the first receivable broadcast station.

Notes:

- When radio interference occurs, auto scan tuning may stop automatically at that point.
- Auto scan tuning will skip weak signal stations.
- To stop the auto tuning, press the TUNING (▼ or ▲) button again.

To receive an FM stereo transmission:

- Press the FUNCTION button on main unit or TUNER (BAND) button on remote control repeatedly to select stereo mode and "ST" indicator will be displayed. "∞" will appear when an FM broadcast is in stereo.
- If the FM reception is weak, press the TUNER (BAND) button to extinguish the "ST" indicator. The reception changes to monaural, and the sound becomes clearer.

■ Memorising a station

You can store 40 AM and FM stations in memory and recall them at the push of a button. (Preset tuning)

1. Perform steps 1 - 3 in "Tuning".
2. Press the MEMORY button.

3. Within 30 seconds, press the PRESET (▽ or △) button to select the preset channel number. Store the stations in memory, in order, starting with preset channel 1.
4. Within 30 seconds, press the MEMORY button to store that station in memory. If the "MEMORY" and preset number indicators disappear before the station is memorized, repeat the operation from step 2.
5. Repeat steps 1 - 4 to set other stations, or to change a preset station. When a new station is stored in the memory, the station previously memorized for that preset channel number will be erased.

Note:
The backup function protects the memorized stations for a few hours should there be a power failure or the AC power cord become disconnected.

■ To recall a memorized station

Press the PRESET (▽ or △) button for less than 0.5 seconds to select the desired station.

■ To scan the preset stations

The stations saved in the memory can be scanned automatically. (Preset memory scan)

1. Press the PRESET (▽ or △) button for more than 0.5 seconds. The preset number will flash and the programed stations will be tuned in sequentially, for 5 seconds each.
2. Press the PRESET (▽ or △) button again when the desired station is located.

■ To erase entire preset memory

1. Press the ON/STAND-BY button to enter the stand-by mode.
2. While pressing down the FUNCTION button, press the POWER ON/STAND-BY button until "TUNER CLEAR" appears.

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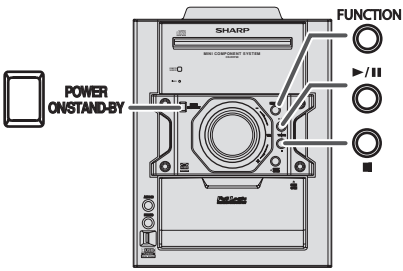
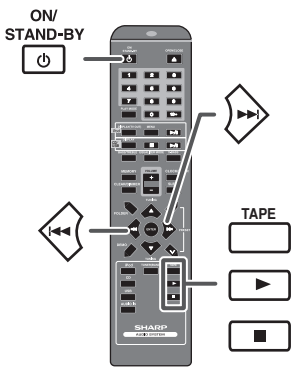
Listening to a cassette tape

Before playback:

- **For playback, use normal or low-noise tapes for the best sound. (Metal or CrO_2 tapes are not recommended.)**
- Do not use C-120 tapes or poor-quality tapes, as they may cause malfunctions.
- Before loading a tape into the cassette compartment, tighten the slack with a pen or a pencil.



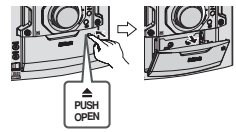


■ Tape playback

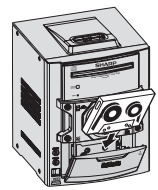
1 Press the ON/STAND-BY button to turn the power on.

2 Press the FUNCTION button on main unit repeatedly or TAPE button on remote control to select TAPE function.

3 Open the cassette door by pushing the area marked "⏏ PUSH OPEN".



4 Load a cassette into the cassette compartment.



5 Press the ►/II (TAPE ►) button to start playback.

Auto power on function:
When you press any of the following buttons, the unit turns on.

- TAPE button (remote control): The unit turns on and the "TAPE" function is activated.
- ►/II button on the main unit: The unit turns on and playback of the last function starts (iPod, CD, TUNER, USB, AUDIO IN, TAPE).

Auto power off function:
In the stop mode of tape operation, the main unit enters the stand-by mode after 15 minutes of inactivity.

■ Various tape functions

Function	Main unit	Remote control	Operation
Tape playback	►/II	►	Press in the stop mode.
Stop	■	■	Press in the playback, fast forward or fast rewind mode.
Fast forward/ Fast rewind	———	▶▶ / ◀◀	Press in the playback or stop mode.

Caution:

- To remove the cassette, press the ■ (TAPE ■) button, and then open the compartment.
- If a power failure occurs during tape operation, the tape head will remain engaged with the tape and the cassette door will not open. In this case, wait until the power is restored.

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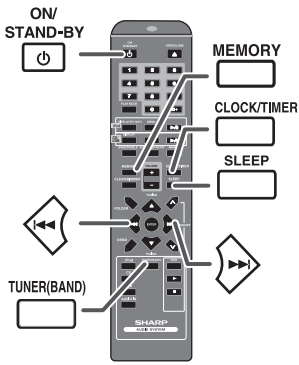


Timer playback:
The unit turns on and plays the desired source (CD, TUNER, USB, iPod, AUDIO IN, TAPE) at a preset time.

This unit has 2 types of timer: ONCE TIMER and DAILY TIMER.

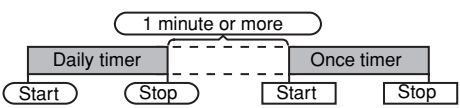
Once timer:
Once timer play works for one time only at a preset time.

Daily timer:
Daily timer play works at the same preset time every day. For example, set the timer as a wake-up call every morning.

Using the once timer and daily timer in combination:
For example, use the once timer to listen a radio program, and use the daily timer to wake up.

1 Set the daily timer (pages 17 - 18).

2 Set the once timer (pages 17 - 18).



■ Timer playback

Before setting timer:

- Check that the clock is set to the correct time (refer to page 6). If it is not set, you cannot use the timer function.
- For timer playback: Plug in USB or load discs or dock iPod to be played.

⇩

1 Press the ON/STAND-BY button to turn the power on.

2 Press and hold the CLOCK/TIMER button.

3 Within 10 seconds, press the ⏮ or ⏭ button to select “ONCE SET” or “DAILY SET”, and press the MEMORY button. Set the clock to the correct time if “ONCE SET” or “DAILY SET” does not appear.

4 Within 10 seconds, press the ⏮ or ⏭ button to select “TIMER SET”, and press the MEMORY button.

5 To adjust the hour, press the ⏮ or ⏭ button and then press the MEMORY button.

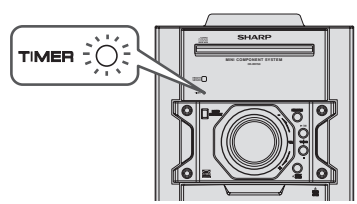
6 To adjust the minutes, press the ⏮ or ⏭ button and then press the MEMORY button.

7 Set the time to finish as in steps 5 and 6 above.

8 To select the timer playback source (CD, TUNER, USB, iPod, TAPE or AUDIO IN), press the ⏮ or ⏭ button. Press the MEMORY button.
When you select the tuner, select a station by pressing the ⏮ or ⏭ button, and then press the MEMORY button. If a station has not been programed, “NO PRESET” will be displayed and timer setting will be canceled.

9 Adjust the volume using the VOLUME control, and then press the MEMORY button. Do not turn the volume up too high.

10 Press the ON/STAND-BY button to enter the power stand-by mode. The “TIMER” indicator lights up and the unit is ready for timer playback.



11 When the preset time is reached, playback will start. The volume will increase gradually until it reaches the preset volume. The “🕘” indicator will blink during timer playback.
The “DAILY” indicator will blink during timer playback.

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12 When the timer end time is reached, the system will enter the power stand-by mode automatically.

Once timer:
The timer will be canceled.

Daily timer:
The timer operates at the same time every day. It will continue until the daily timer setting is canceled. Cancel the daily timer when it is not in use.

Notes:

- When performing timer playback using another unit connected to the USB terminal or AUDIO IN jack, select "USB" or "AUDIO IN" in step 8.
- This unit will turn on or enter the power stand-by mode automatically. However, the connected unit will not turn on or off. To stop the timer playback, follow step **"Cancelling the timer setting"** of this page.

Checking the timer setting:

1 Turn the power on and press and hold down the CLOCK/TIMER button.

2 Within 10 seconds, press the ⏮ or ⏭ button to select "ONCE SET" or "DAILY SET", and press the MEMORY button.

3 Within 10 seconds, press the ⏮ or ⏭ button to select "TIMER CALL", and press the MEMORY button.

Cancelling the timer setting:

1 Turn the power on and press and hold down the CLOCK/TIMER button.

2 Within 10 seconds, press the ⏮ or ⏭ button to select "ONCE SET" or "DAILY SET", and press the MEMORY button.

3 Within 10 seconds, press the ⏮ or ⏭ button to select "TIMER OFF", and press the MEMORY button. Timer will be canceled (the setting will not be canceled).

Reusing the memorized timer setting:
The timer setting will be memorized once it is entered. To reuse the same setting, perform the following operations.

1 Turn the power on and press and hold down the CLOCK/TIMER button.

2 Within 10 seconds, press the ⏮ or ⏭ button to select "ONCE SET" or "DAILY SET", and press the MEMORY button.

3 Within 10 seconds, press the ⏮ or ⏭ button to select "TIMER ON", and press the MEMORY button.

4 Press the ON/STAND-BY button to enter the power stand-by mode.

■ Sleep operation

The radio, compact disc, iPod and USB can all be turned off automatically.

1 Play back the desired sound source.

2 Press the SLEEP button.

3 Within 10 seconds, press the SLEEP button repeatedly to select the time.

10 → 20 → 30 →..... 80 → 90

4 "SLEEP" will appear.

5 The unit will enter the power stand-by mode automatically after the preset time has elapsed. The volume will be turned down 1 minute before the sleep operation finishes.

To confirm the remaining sleep time:

1 While "SLEEP" is indicated, press the SLEEP button.

To cancel the sleep operation:
Press the ON/STAND-BY button while "SLEEP" is indicated. To cancel the sleep operation without setting the unit to the stand-by mode, proceed as follows.

1 While "SLEEP" is indicated, press the SLEEP button.

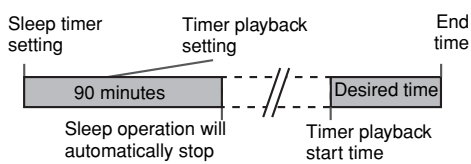
2 Within 10 seconds, press the SLEEP button repeatedly to select "SLEEP 00".

■ To use timer and sleep operation together

Sleep and timer playback:
For example, you can fall asleep listening to the radio and wake up to CD in the next morning.

1 Set the sleep time (see above, steps 1 - 5).

2 While the sleep timer is set, set the timer playback (steps 2 - 9, page 17).



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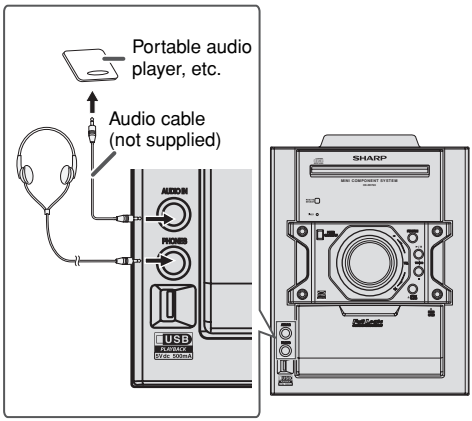
Enhancing your system

The connection cord is not included. Purchase a commercially available cord as shown below.



Auto power on function (AUDIO IN):
When you press any of the following buttons, the unit turns on.

- AUDIO IN button on the remote control: The unit turns on and the "AUDIO IN" function is activated.
- ►/II button on the main unit: The unit turns on and playback of the last function starts (CD, TUNER, AUDIO IN, USB, iPod, TAPE).

■ Listening to the playback sounds of portable audio player, etc.

1. Use a connection cord to connect the portable audio player etc. to the AUDIO IN jack. When using video equipment, connect the audio output to this unit and the video output to a television.
2. Press the ON/STAND-BY button to turn the power on.
3. Press the AUDIO IN button on the remote control or FUNCTION button repeatedly on main unit to select AUDIO IN function.
4. Play the connected equipment. If volume level of the connected device is too high, sound distortion may occur. Should this happen, lower the volume of the connected device. If volume level is too low, increase the volume of the connected device.

Note:
To prevent noise interference, place the unit away from the television.

■ Headphones

- Do not turn the volume on to full at switch on and listen to music at moderate levels. Excessive sound pressure from earphones and headphones can cause hearing loss.
- Before plugging in or unplugging the headphones, reduce the volume.
- Be sure your headphones have a 1/8" (3.5 mm) diameter plug and impedance between 16 and 50 ohms. The recommended impedance is 32 ohms.
- Plugging in the headphones disconnects the speakers automatically. Adjust the volume using the VOLUME control.

Troubleshooting chart

Many potential problems can be resolved by the owner without calling a service technician.
If something is wrong with this product, check the following before calling your authorized SHARP dealer or service center.

■ General

Symptom	Possible cause
● The clock is not set to the correct time.	● Did a power failure occur? Reset the clock. (Refer page 7)
● When a button is pressed, the unit does not respond.	● Set the unit to the power stand-by mode and then turn it back on. ● If the unit still malfunctions, reset it. (Refer page 20)
● No sound is heard.	● Is the volume level set to "0"? ● Are the headphones connected? ● Are the speaker wires disconnected?

■ CD player

Symptom	Possible cause
● Playback does not start. ● Playback stops in the middle or is not performed properly.	● Is the disc loaded upside down? ● Does the disc satisfy the standards? ● Is the disc distorted or scratched?
● Playback sounds are skipped, or stopped in the middle of a track.	● Is the unit located near excessive vibrations? ● Is the disc very dirty? ● Has condensation formed inside the unit?

■ Remote control

Symptom	Possible cause
● The remote control does not operate.	● Is the AC power cord of the unit plugged in? ● Is the battery polarity correct? ● Are the batteries dead? ● Is the distance or angle incorrect? ● Does the remote control sensor receive strong light?

■ Tuner

Symptom	Possible cause
● The radio makes unusual noises continuously.	● Is the unit placed near the TV or computer? ● Is the FM antenna or AM loop antenna placed properly? Move the antenna away from the AC power cord if it is located nearby.

■ Cassette deck

Symptom	Possible cause
● Sound skipping. ● Cannot hear treble. ● Sound Fluctuation.	● Is there any slack? ● Is the tape stretched? ● Are the capstans, pinch rollers or heads dirty?
● Cannot remove the tape.	● If a power failure occurs during playback, the heads remain engaged with the tape. Do not open the compartment with great force.

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■ USB

Symptom	Possible cause
● Device cannot be detected.	● Is there any MP3/WMA file available? ● Is the device properly connected? ● Is it an MTP device? ● Does the device contain AAC file only?
● Playback does not start.	● Is it a copyright protected WMA file? ● Is it a false MP3 file?
● Wrong time display. ● Wrong file name display.	● Is Variable Bitrate file being played back? ● Is the File Name written in Chinese or Japanese characters?

■ iPod

Symptom	Possible cause
● No sound is produced. No image appears on the TV/monitor.	● The iPod is not playing. ● The iPod is not properly connected to the unit. ● Is the AC power cord of the unit plugged in? ● The video cable is not properly connected. ● The TV/monitor's input selection is not properly set.
● iPod will not charge.	● Wrong iPod adaptor is used. ● The iPod is not making full contact with the iPod connector. ● The main unit is in stand-by mode. ● Using 3rd generation iPod.

■ Condensation

Sudden temperature changes, storage or operation in an extremely humid environment may cause condensation inside the cabinet (CD pickup, etc.) or on the transmitter on the remote control. Condensation can cause the unit to malfunction. If this happens, leave the power on with no disc in the unit until normal playback is possible (about 1 hour). Wipe off any condensation on the transmitter with a soft cloth before operating the unit.

■ If problem occurs

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

If such a problem occurs, do the following:

1 Set the unit to the stand-by mode and turn the power on again.

2 If the unit is not restored in the previous operation, unplug and plug in the unit again, and then turn the power on.

Note:
If neither operation above restores the unit, clear all the memory by resetting it.

■ Factory reset, clearing all memory

1 Press the ON/STAND-BY button to enter the power stand-by mode.

2 While pressing down the OPEN/CLOSE button, press the POWER ON/STAND-BY button until "ALL CLEAR" appears.

Caution:
This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD program.

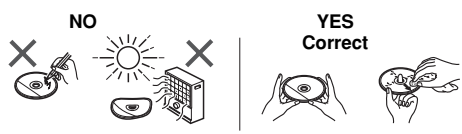
■ Before transporting the unit

Remove all CDs from the unit. Make sure there is no CD in the disc tray. Then, set the unit to the power stand-by mode. Carrying the unit with discs left inside can damage the unit.

■ Care of compact discs

Compact discs are fairly resistant to damage, however mistracking can occur due to an accumulation of dirt on the disc surface. Follow the guidelines below for maximum enjoyment from your CD collection and player.

- Do not write on either side of the disc, particularly the non-label side from which signals are read. Do not mark this surface.
- Keep your discs away from direct sunlight, heat, and excessive moisture.
- Always hold the CDs by the edges. Fingerprints, dirt, or water on the CDs can cause noise or mistracking. If a CD is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the center, along the radius.



Maintenance

■ Cleaning the cabinet

Periodically wipe the cabinet with a soft cloth and a diluted soap solution, then with a dry cloth.

Caution:
- Do not use chemicals for cleaning (gasoline, paint thinner, etc.). It may damage the cabinet.
- Do not apply oil to the inside of the unit. It may cause malfunctions.

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Specifications

As part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

■ General

Power source	AC 120 V ~ 60 Hz
Power consumption	55 W
Dimensions	Width: 9 - 7/16" (240 mm) Height: 12 - 7/16" (315.5 mm) Depth: 11 - 5/32" (283.2 mm)
Weight	8.8 lbs. (5.4 kg)

■ Amplifier

Output power	PMPO: 2800 watts RMS: Total 200 watts (100 watts per channel into 4 ohms at 1 kHz, 10% total harmonic distortion) FTC: 75 watts minimum RMS per channel into 4 ohms from 100 Hz to 20 kHz, 10% total harmonic distortion.
Output terminals	Speakers: 4 ohms Headphones: 16 - 50 ohms (recommended: 32 ohms)
Input terminals	Audio In (audio signal): 250 mV/47 k ohms

■ CD player

Type	Single disc multi-play compact disc player
Signal readout	Non-contact, 3-beam semiconductor laser pickup
D/A converter	Multi bit D/A converter
Frequency response	20 - 20,000 Hz
Dynamic range	90 dB (1 kHz)

■ Cassette deck

Frequency response	50 - 14,000 Hz (normal tape)
Signal/noise ratio	50 dB (playback)
Wow and flutter	0.35% (WRMS)

■ USB

USB host interface	● Complies with USB 1.1 (Full Speed)/ 2.0 Mass Storage Class. ● Support Bulk only and CBI protocol.
Support file	● MPEG 1 Layer 3 ● WMA (Non DRM)
Bitrate support	● MP3 (32 ~ 320 kbps) ● WMA (64 ~ 160 kbps)
Other	● Maximum total number of MP3/WMA files is 1024. ● Maximum total number of folders is 255 INCLUSIVE of root directory. ● The ID3TAG information supported are TITLE, ARTIST and ALBUM only. ● Supports ID3TAG version 1 and version 2.
File system support	● Support USB devices with Microsoft Windows/DOS/FAT 12/ FAT 16/ FAT 32. ● 2 kbyte block length for sector.

■ Tuner

Frequency range	FM: 87.5 - 108 MHz AM: 530 - 1,720 kHz

■ Speaker

Type	2-way type speaker system 2" (5 cm) tweeter 5-1/8" (13 cm) woofer
Maximum input power	200 W
Rated input power	100 W
Impedance	4 ohms
Dimensions	Width: 7-1/16" (180 mm) Height: 11-13/16" (300 mm) Depth: 8" (204 mm)
Weight	6.0 lbs. (2.7 kg)/each

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